DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO



ENT: 2019-2020 TIME : 2.00 Hrs.

MATH & GAT

Sr. No. **MAXIMUM MARKS : 150**

QUESTION - BOOKLET

GENERAL INSTRUCTIONS

- Do not carry any book, paper or any other material with you inside the Examination Hall. 1.
- Use only Black / Blue ball pen. 2.
- 3. Keep the Hall Ticket with you ready for scrutiny.
- Result of this Examination will be displayed on the Notice Board. The Result Sheet will 4.

include the successful/ qualified candidates ONLY.

5. All successful candidates indicated on the list shall present themselves for the invetview on the same day.

6. This Test Booklet contains 150 items (Questions). Question No. 1 to 150 (MCQ) carry 1 mark each You have to select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, Choose Only One response for each item.

All the answers must be marked on the Answer Sheet only. Do not write anything on this Test 7. Booklet.

IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK 8. THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR QUESTION ETC. IF SO, GET IT REPLACED BY THE SUPERVISOR.

9. Ask for a separate paper for rough work.

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DEFENCE CAREER ACADEMY DCA Entrance Examination - 2019

C.P.T.O.

10. Read the questions carefully, Remember, answers are to be indicated in the Answer Sheet Only. Return the Test Booklet, Rough work papers and the Answer Sheet immediately when asked to do so. You are NOT permitted to take away with you any paper concerning the Examination.

ANSWER SHEET

The Answer Sheet contains 150 counts, each subdivided in four { (1) (2) (3) (4) } subdivisions for indicating the correct choice of answers. After having selected the correct choice from the test Booklet, you should indicate that choice by completely blackening the respective circle, DO NOT merely cross the circle. You should indicate correct answer by blackening ONLY ONE circle in each answer. Any answer having more than ONE blackened circle will be treated as a WRONG answer.
Before starting the answering ensure that you have filled the complete information at the top of this Answer Sheet. Incomplete Answer Sheet will be regarded as invalid.

THANK YOU AND BEST OF LUCK



DCA Entrance Examination - 2019

*	DEFENCE CAR	EER ACADEMY	Entrance Exa	mination - 2019 <i>P.T.O.</i>
	1) $\frac{7}{9}$	2) $\frac{7}{10}$	3) $\frac{7}{11}$	4) $\frac{7}{8}$
12.	What is the $\frac{p}{q}$ form	of recurring decimal 0.777	.?	
	1) $\sqrt{8} - \sqrt{3}$	2) $\sqrt[4]{6}$	3) $\sqrt{6}$	4) $\sqrt{12}$
11.	What is the square ro	ot of $2\sqrt{24}$?		
	1) $\frac{23}{36}$	2) $\frac{41}{72}$	3) $\frac{19}{36}$	4) $\frac{43}{72}$
10.	Which of the followi	ng rational numbers lies betw	ween the rational num	bers $\frac{5}{9}$ and $\frac{7}{12}$?
	1) ∜0.16	2) ∛0.27	3) \sqrt{0.16}	4) √0.27
9.	Which of the following	ng is not a surd ?		
	1) $x = -2$ or $x = 1$	2) $x = -2$ or $x = -1$	3) $x = 2$ or $x = -1$	4) $x = 2$ or $x = 1$
8.	What is the solution	of $\left x - \frac{1}{2} \right = \frac{3}{2}$?		
	1) 0.54	2) 0. 54	3) 0.45	4) $0.\overline{45}$
7.	What is the decimal	form of the rational number	$\frac{6}{11}$?	
	4) $D = \{q q^2 - 25 = 0$	}		
	3) C = {p p \in I, P ³ = 2	27}		
	2) B = {y 5+y ² = 4 +	$2y^2, y \in I$		
	1) A = { $x x^2 = 49, x \in$	I}		
6.	Which of the followi	ng sets is a singleton set?		/ (- / - / J
5.	1) $\{a, d, g\}$	2) $\{a, b, f\}$	3) {a, d}	4) $\{b, c, f\}$
5	If $A \cup R = \{a, b, c, d\}$	(2) B e f and A - $\{h, c, e, f\}$ th	$\mathbf{J} \mathbf{D} + \mathbf{A}$	$\mathbf{H}_{\mathbf{D}} \smile \mathbf{A}$
4.	$ \square B \subset A, \text{ then what } $	$(\mathbf{B} \cup (\mathbf{B} \cup \mathbf{I}))$	3) $\mathbf{B}' \cap \mathbf{A}'$	
4	1) $A \subset (A \cup 2)$	$Z = (A \cup Z)$	$3) (\mathbf{A} \cup 2) \subset \mathbf{A}$	4) $(\mathbf{A} \cup 2) \cup \mathbf{A} = \mathbf{A}$
3.	which of the following $1 \ge 4 \le 1 \le 2 \le 1 \le 1 \le 2 \le 1 \le 1 \le 1 \le 1 \le 1$	ng 1s a true relation between 2 A (A + + 2)	A and $(A \cup 2)$?	
2	1) $A' \cap B$	2) $\mathbf{A} \cup \mathbf{B}$	3) A	4) B
2.	Which of the following	ng is true for $A \cup (B \cup 1)$?		
	1) Commutative	2) Associative	3) Distributive	4) Equality
1.	For sets A, B and C, statement suggest ?	$(\mathbf{A}\cup 2)\cup\mathbf{C}=\mathbf{A}\cup(\mathbf{B}\cup 3).$	Which property of the	operation of union does this

13.	What should be add	ded to $5x^2 + 2xy + y^2$ to	$y = 3x^2 + 4xy - 2y^2$?	
	1) $-2x^2 + 2xy - y^2$	2) $-2x^2 + 2xy + y^2$	3) $-2x^2 + 2xy - 3y$	$(x^2 - 4) - 2x^2 + 2xy + 3y^2$
14.	In which two parts	should the middle term	h be split to factorise $2x^2 + 5$	5x - 3?
	1) 2x and 3x	2) $- 2x$ and $- 3x$	3) x and – 6x	4) 6x and – x
15.	(2x - 3) (3x+2) are	the factors of which o	of the following expressions	\$?
	1) $6x^2 + 5x - 6$	2) 6x ² - 5x - 6	3) 6x ² - 9x - 6	4) $6x^2 + 9x - 6$
16.	What is the coeffic	ient form of the polyno	omial $x^5 + 3x^2 - 1$?	
	1) (1, 3, -1)	2) (1, 0, 3, -1)	3) (1, 0, 0, 3, 0, -1	4) (1, 0, 3, 0, -1)
17.	What is the coeffic	ient form of the polyno	omial $y^4 + 3?$	
	1) (1, 3)	2) (1, 0, 3)	3) (1, 0, 0, 3)	4) (1, 0, 0, 0, 3)
18.	What is the index f	orm of the polynomial	(1, 0, -3, 0, 5) taking x as v	ariable?
	1) $x^5 - 3x^2 + 5$	2) $x^4 - 3x^3 + 5$	3) $x^4 - 3x^2 + 5$	4) $x^4 - 3x + 5$
19.	When $(x^3 + 2x^2 - x)$	- 1) is divided by (x-1)	, the remainder is zero. What	at is the value of a?
	1) -1	2) 1	3) -2	4) 2
20.	Which of the follow	ving is not a linear equ	ation in two variable?	
	1) $x + y = 3$	2) x - $2y = 3$	3) x - 7 = y	4) xy = 3
21.	Which of the follow	wing is not the solution	of $2x + 3y = 6$?	
	1) (-3, 4)	2) (3, -4)	3) (0, 2)	4) (3, 0)
22.	Which of the follow	wing represents the gen	neral form of the linear equa	ation $y = 5x - 7$?
	1) 5x - y = 7	2) $5x - y - 7 = 0$	3) $y - 5x + 7 = 0$	4) $5x + y = -7$
23.	What is the value of	f x, if $2x + y = 5$ and y	-1 = 0?	
	1) 5	2) 4	3) 2	4) 0
24.	What is the value o	f (x-y), if $\frac{x}{2} = \frac{6}{y} = 2$?		
	1) 4	2) 1	3) -1	4) 0
25.	What is the solution	n of the simultaneous e	equations $2x + y = 5$ and $x + y = 5$	-2y = 4?
	1) (2,2)	2) (1,1)	3) (1,2)	4) (2,1)
26.	What is the value o	f (x-y), if $4x + 3y = 24$	and $3x + 4y = 25$?	
	1) -1	2) 1	3) 7	4) -7
27.	What is the value of	$f\left(\frac{1}{x}-\frac{1}{y}\right)$, if $\frac{6}{x}-\frac{3}{y} =$	10 and $\frac{2}{x} - \frac{5}{y} = 6$?	
	1) 1	2) 2	3) -2	4) 4
28.	In which quadrant of	or on which axis will th	ne point (x,y) lie in the follow	wing cases?
	x < 0, y < 0			
	1) Quadrant I	2) Quadrant II	3) Quadrant III	4) Quadrant VI
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*	DEFENCE CARI	EERACADEMY 3	Entrance Exa	mination - 2019 <i>P.T.O.</i>		
	1) A line	2) A point	3) A plane	4) An angle		
43.	What is the intersecti	on of two planes?				
	3) Any two points		4) Any four points			
	1) Three collinear points		2) Three non-collinear points			
42.	How many points det	How many points determine a plane ?				
	1) One and only one	2) Two	3) Four	4) Infinite		
41.	How many lines can b	be drawn passing through a g	given point.			
	1) 25	2) 24	3) 23	4) 22		
40.	What is the value of a	x, if the mean of 21, 22, 23,	24, and x is 23?			
	1) 25	2) 9	3) 7	4) 5		
39.	What is the mean of a	first five odd natural number	rs?			
	1) 30	2) 7	3) 6	4) 5		
38.	What is the mean of a	first five even natural numbe	ers?			
	1) 8.5	2) 7.5	3) 9	4) 10		
	12, 8, 10, 6, 9 ?					
37.	What is the mean of	observations				
	1) 9	2) 3	3) 30	4) 6		
	2, 4, 7, 8, 9 ?					
36.	What is the mean of	What is the mean of observations				
	1) Sir Ronald Fisher	2) Blaise Pascal	3) Pierre Fermat	4) Jacques Bernoulli		
35.	Which mathematician	n is known as the father of s	statistics?			
	1) Invertendo	2) Alternendo	3) Componendo	4) Dividendo		
34.	If $x : y = a : b$, then b	y which property of equal rat	tios is $x : a = y : b$?			
	1) 3200%	2) 320%	3) 32%	4) 3.2%		
33.	What is the percentage	ge form of $\frac{16}{5}$?				
	1) 2 : 1	2) 3: 1	3) 78 : 29	4) 4 : 1		
32.	What is the simplest	form of the ratio of 3 min 5	4 sec to 1 min sec?			
	1) 1.4 cm	2) 2.8 cm	3) 4.2 cm	4) 7.0		
31.	In rectangle ABCD, A	$AB:BC = 5: 3. A (\square ABC4) =$	= 29.4 cm2. What is the	he length of AB?		
_	1) Quadrant II	2) Quadrant III	3) X-axis	4) Y-axis		
30.	Where does the point	t (-3, 0) lie in the Cartesian	coordinate system?			
	1) X-axis	2) Y-axis	3) Quadrant I	4) Quadrant VI		
	x > 0, y = 0					
29.	. In which quadrant or on which axis will the point (x,y) lie in the following cases?			ring cases?		

44.	If $l(A2) = 7$ cm. $l(BP) = 4$ cm and $l(AP)$ 5.4 cm, then which of the following is true?			
	1) $AB < BP < AP$	2) $AP < AB < BP$	3) BP $<$ AP $<$ AB	4) BP $<$ AB $<$ AP
45.	How many elements	does a triangle have?		
	1) Two	2) Three	3) Six	4) Nine
46.	In \triangle ABC, \angle A = 43	$5^{\circ}, \angle B = 45^{\circ}, \angle C = 90^{\circ}.$ Where $A = 45^{\circ}, \angle C = 90^{\circ}$.	hat type of Δ ABC is?	,
	1) Isosceles triangle	;	2) Isosceles right an	ngled triangle
	3) Right angled trian	ıgle	4) Equilateral triang	gle
47.	Which of the follow:	ing are not cevians in an acu	te angled triangle?	
	1) Perpendicular		2) Medians	
	3) Angle bisectors		4) Altitudes	
48.	In which type of tria	ngle does the centroid, incer	ntre and orthocentre li	e at the same point?
	1) An isosceles triar	ngle	2) A right angled tri	angle
	3) An equilateral tria	angle	4) An isosceles righ	t angled triangle
49.	For the corresponder PP and $\langle A \rangle = \langle P \rangle$	ice ABC \leftrightarrow RQP between Δ Then by which test are the t	ABC and Δ PQR, se	$g AB = seg QR, seg Ac \cong seg$
	1) SAS	$2) S \Delta \Delta$	3) A S A	<i>(</i>) SSS
50				·) 555
50.	U. In \triangle ABC, D is a point on side BC such that $AD = BD = CD$. Then which of the following is true			
	1) Δ ABC is an equ	ilateral triangle	2) Δ ABC is a right	t angled triangle
	3) Δ ABC is an isos	sceles right angled triangle	4) Δ ABC is an iso	osceles triange
51.	What is the measure	of the acute angle of an iso	sceles right angled tri	angle?
	1) 30 ⁰	2) 40°	3) 45°	4) 60°
52.	in \triangle ABC, \angle C \cong \angle	\angle A. Which sides of \triangle ABC	are congurent?	
	1) Any two	2) AC and BC	3) AB and AC	4) AB and BC
53.	What are the circles	with centre P and radius 6 cr	m and with centre P and	nd radius 8 cm called?
	1) The same circles	2) Congruent circles	3) Concentric circl	es 4) Collinear circles
54.	What are the circles	with centre P and radius 4.5	cm and with centre Q	and radius 4.5 cm called?
	1) The same circles	2) Congruent circles	3) Concenric circle	es 4) Collinear circles
55.	Line <i>l</i> lies in the pla from P on the line <i>l</i> ,	ne of a circle with centre P lies in the interior of the cir	and radius 5 cm. M, ccle. What is the lengt	the foot of the perpendicular h of PM?
	1) PM > 5 cm	2) PM \geq 5 cm	3) $PM = 5 cm$	4) PM < 5 cm
56.	Line l lies in the pla from P on the line l	ne of a circle with centre P does not line in the interior	and radius 8 cm. M, of the circle. What is	the foot of the perpendicular the length of PM?
	1) 8 cm	2) < 8 cm	3) > 8 cm	4) ≥ 8 cm
57.	□ ABCD is a paralle	logram in which $AB = 4$ cm	and $BC = 5$ cm. What	t is its perimeter?
	1) 9 cm	2) 20 cm	3) 20 cm ²	4) 18 cm
58.	The perimeter of par	allelogram PQRS is 30 cm.	If $PQ : QR = 2 : 3$, where $QR = 2$ is a specific product of $QR = 2$ is a specific product of $QR = 2$.	nat is the length of RS?
	1) 3	2) 4	3) 6	4) 9
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59.	□ ABCD is a parallel	logram in which $AB = 2 BC$.	If CD=8 cm, then wh	at is the perimeter \square ABCD?
	1) 12 cm	2) 24 cm	3) 28 cm	4) 32 cm
60.	In parallelogram DEI	FG, $\angle D$: $\angle E = 7$: 11. When	at is the measure of \angle	F?
	1) 70°	2) 35 ⁰	3) 55 ⁰	4) 110°
61.	What is the distance	between the points $A \equiv (4, 7)$	() and B $\equiv (-1, 5)$?	
	1) 5	2) 12	3) 13	4) $\sqrt{13}$
62.	What is the distance	of the point $P \equiv (-3, 4)$ from	n the origin O?	
	1) 5	2) -3	3) 4	4) -5
63.	The coordinates of the are the coordinates of the c	he midpoint of seg AB are (1) f point A ?	, 1) and the coordinate	es of point B are (4, 3). What
	1) (2, 1)	2) (-2, 1)	3) (2, -1)	4) (-2, -1)
64.	$P \equiv (-7, 4)$ and $Q \equiv$ coordinaes of the point	(5, -2). Point R divides seg int R.	ment PQ internally in	the ratio 1 : 1. What are the
	1) (1, 1)	2) (-1, 1)	3) (-1, -1)	4) (1, -1)
65.	The distance between	the points $A \equiv (2, -3)$ and B	$B \equiv (5, x)$ is 5. What	is the value of x?
	1) 1	2) 7	3) 2	4) 5
66.	Δ ABC, \angle B = 90°.	If $AB = 8$ cm, $BC = 15$ cm a	and $AC = 17$ cm, then	what is the value of cos C?
	1) $\frac{8}{15}$	2) $\frac{15}{8}$	3) $\frac{15}{17}$	4) $\frac{8}{17}$
67.	In \triangle ABC, \angle C - 90	0° . If AB = 5 cm, AC = 4 cm a	and $BC = 3 \text{ cm}$, then y	what is the value of tan B?
	1) $\frac{4}{3}$	2) $\frac{3}{4}$	3) $\frac{4}{5}$	4) $\frac{3}{5}$
68.	If $2\sin\theta = 3\cos\theta$,	then what is the value of tan	θ?	
	1) $\frac{2}{3}$	2) $\frac{3}{2}$	3) 1	4) $\frac{1}{2}$
69.	If $\tan \theta = 1$, then wh	at is the value of sin θ . cos	θ?	
	1) 1	2) 2	3) $\frac{1}{4}$	4) $\frac{1}{2}$
70.	Δ ABC, \angle C - 90 ⁰ .	If AC = 15 cm and sin C = $\frac{3}{5}$, then what is the valu	e of AB?
	1) 3 cm	2) 6 cm	3) 9 cm	4) 12 cm
71.	\Box ABCD, \angle B = 90°	0 . If AB = 6 cm and BC = 8 c	m, then what is (Δ AI	33) ?
	1) 24 cm ²	2) 30 cm ²	3) 40 cm ²	4) 48 cm ²
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	(A POR)?				
	$(\Delta I Q R)$:				
	1) 80 cm ²	2) 48 cm ²	3) 40 cm ²	4) 24 cm ²	
73.	□ WXYZ is a parallel	ogram. If A (Δ WXZ) = 16	cm^2 . then what is A (]WXYZ)?	
	1) 16 cm^2	2) 32 cm ²	3) 24 cm ²	4) 48 cm ²	
74.	ABCD is a rhombus	s in which $AC = 6$ cm and B	D = 9 cm. What is the	area of rhombus ABCD?	
	1) 54 cm^2	2) 45 cm ²	3) 15 cm ²	4) 27 cm ²	
75.	. If the are of rhombus ABCD is 40 cm ² and AC = 8 cm, then what is the length of BD?				
	1) 5 cm	2) 8 cm	3) 10 cm	4) 16 cm	
		PART - H	САТ		

* Q.76. to 78 : Read the following passage carefully and answer the questions choosing the correct option.

PASSAGE-I

Without causing any pollution in the form of suffocating fumes and earsplitting explosions, the bicycle converts energy into motion and, that too, more efficiently than any other machine. For the first time since the appearance of motor cars, the bicycle is seen today as a more attractive means of transport. Improved technology, combined with heightened interest in the environment, the outdoors and physical fitness, have transformed the image of bicycling in Europe and America into a fashionable and healthy activity. Cycling is a form of sport that enables people to rediscover nature. The ATB (all-terrain-bike) is used in riding to the top of mountains and in cross-country races. Riding an ATB is a great way of keeping fit, and it is quieter than walking. The cyclist hears no sound of the tyres on the path and is free to watch the flora and fauna while having a joyride with friends.

6

76. The image of the bicycle has changed mainly because of

1) interest in environment and physical fitness

2) physical fitness and fashion

3) its noiselessness & smoke free operation

4) improved technology and fashion

77. The bicycle is a machine which

1) Converts physical energy into motion easily

2) require as much energy as a motor car.

3) is not as good as a motor car for sight seeing

4) is not in fashion these days.

78. Riding on ATB is quieter than walking because

1) its tyres produce no sound while moving along the path

2) its tyres do not touch the ground

3) it has a very slow speed

4) walking shoes are noisy

DEFENCE CAREER ACADEMY

Entrance Examination - 2019

* Q.79. to 81 : Read the following passage carefully and answer the questions choosing the correct option.

PASSAGE-II

We had often animal visitors that were not welcome. Scorpions were frequently found in our cells, especially after a thunder-storm. It was surprising that I was never stung by one, for I would come across them in the most unlikely place – on my bed, or sitting on a book which I had just lifted up. I kept a particularly black and poisonous-looking brute in a bottle for sometime, feeding him with flies, etc., and then when I tied him up on a wall with a string he managed to escape. I had no desire to meet him loose again, and so I cleaned my cell out and hunted for him everywhere, but he had vanished.

79. Scorpions were unwelcome visitors because 1) they were black and ugly 2) the author was afraid of them 3) they made the room dirty 4) the author did not love animals 80. The author kept a scorpion in a bottle because he wanted to 1) feed him with flies 2) clean his room 3) watch him out of curiosity 4) torutre him 81. When the scorpion escaped from the bottle, the author was 2) scared 3) indifferent 4) sad 1) happy * Instruction : Fill in the blanks with suitable alternative. 82. Please add a little sugar in the tea. 1) Countable Noun 2) Abstract Noun 3) Uncountable Noun 4) Collective Noun 83. He was honared for his bravery. 1) Collective Noun 2) Abstract Noun 3) Common Noun 4) Proper Noun 84. Ritesh has been reading a novel for last two days. 1) Present Perfect tense 2) Present Perfect continuous tense 3) Past Perfect tense 4) Past Perfect continuous tense 85. The result was declared by the board. 4) Adverbial 1) subject 2) complement 3) object 86. You will pass the exam if you study well. 1) main clause 2) subordinate clause 3) principal clause 4) none of these 87. I go to school 4) none of these 1) regular 2) regularly 3) irregular Sanjiv.....now. 88. 3) is playing 4) none of these 1) was playing 2) play 89. The sentence, "This is the boy whom I met yesterday." is 1) Simple sentence 2) compound sentence 3) complex sentence 4) none of these DEFENCE CAREER ACADEMY 7 Entrance Examination - 2019

*	Instruction : Find	the word with correct	spellings.	
90.	1) Colonel	2) Colonal	3) Cornal	4) Curnel
*	Instruction : Give t	he Synonyms of :		
91.	He is good-looking b	out <u>insipid</u> young man.		
	1) Arrogant	2) Unspcupulous	3) Sick	4) Lacking in spirit
92.	He had <u>insidiously</u> w	ormed his way into her	affections.	
	1) In a polite manner	2) In a seceat manner	3) In ugly way	4) In a forceful manner
93.	His boss's criticism	left him feel rather abasl	ned.	
	1) Annoyed	2) Arrogant	3) Embarrassed	4) Awakened
94.	The inexorable dema	nds of the workers broug	ght the company to a closu	ire.
	1) Unreasonable	2) Relentless	3) Monetary	4) Violent
95.	The <u>acerbic</u> remarks	of the manager were unv	varranted.	
	1) Bitter	2) furious	3) Arrogant	4) Childish
*	Instruction : Give t	he Antonyms of :		
96.	There was a marginal	<u>l</u> increase in his pay.		
	1) peripheral	2) significant	3) negligible	4) unforeseen
97.	The geologists declar	red that the fossil was <u>at</u>	<u>uthentic.</u>	
	1) fake	2) beautiful	3) old	4) new
98.	The commitee set ab	out making <u>provisional</u> a	arrangements for the annua	al conference.
	1) permanent	2) lasting	3) abiding	4) unconditional
99.	He climbed up a stat	ionary wagon.		
	1) standing	2) shunting	3) speeding	4) moving
100.	It is surprising to find	d her <u>conditioning</u> such a	an act.	
	1) forbidding	2) disliking	3) condemning	4) allowing
101.	If in a certain language	ge, GAMBLE is coded as	s FBLCKF, how is FLOW	ER coded in that code?
	1) GKPVFQ	2) EMNXDS	3) GMPVDS	4) HNQYGT
*	Direction : In each three are alike in so	of the following questione manner and one is	ons, four words have be different. Choose the od	en given, out of which d one.
102.	1) Raid	2) Attack	3) Assault	4) Defence
*	Direction : In each of Choose the correct a	of the following questio alternative that will con	ns, a number series is giv tinue the same pattern a	en with one term missing. nd fill in the blank spaces.
103.	3, 6, 18, 72, ()			
	1) 144	2) 216	3) 288	4) 360
*	DEFENCE CAR	EER ACADEMY	8 Entrance Exam	nination - 2019 <i>P. T. O.</i>

104. Rasik walks 20m North. Then he turns right and walks 30 m. Then he turns right and walks 35 m. Then he turns left and walks 15m. Then he again turns left and walks 15 m. In which direction and how many metres away is he from his original position?

1) 15 metres West 2) 30 metres East 3) 30 metres West 4) 45 metres East

* Direction : In each of the following questions, there is a certain relationship between two given words on one side of : :and one word is given on another side of : : while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair bear. Choose the correct alternative.

105. Muslims : Mosque : : Sikhs : ?						
1) Golden Temp	ple 2) Medina	3) Fire Temple	4) Gurudwara			
106. Plant cel differ	106. Plant cel differ from animal cell in absence of -					
1) centrioles	2) mitochondria	3) endoplasmic	4) ribosomes			
107. Plasmolysis occ	eur due to -					
1) osmosis	2) absorption	3) exosmosis	4) endosmosis			
108. Suicidal bag of	cell is the -					
1) ribosome	2) lysosome	3) cisterna	4) vacuole			
109. ATP molecule f	formation is by-					
1) cytoplasm	2) nucleus	3) nucleoplasm	4) chromosomes			
110. Endoplasmic ret	ticulum network found in -					
1) cytoplasm	2) nucleoplasm	3) only nucleus	4) chromosomes			
111. Inheritance is the	ne function of -					
1) nucleus	2) chromosome	3) centriole	4) all of these			
112. Egg	is the single largest cel	11.				
1) ostrich	2) neuron	3) emu	4) crow			
113. The cortex of b	rain havenerve c	ell.				
1) then thousand	d	2) ten thousand mi	llion			
3) ten lakh		4) only one thousand	nd			
114. Osmotic pressu	re of cell is maintained by	-				
1) cytoplasm	2) mitochondrion	3) vacuole	4) golgi godies			
115. Which of the fo	ollowing part a seed stores f	food?				
1) cotyledon	2) shoot	3) root	4) plumule			
116. The leaf like pa	rt of the embryo is called:					
1) plumule	2) radicle	3) micropyle	4) cotyledons			
117. A sapling grows	s into:					
1) seed	2) plant	3) seedling	4) all the above			
118. Animals with a	backbone are called:					
1) Vertebrates	2) invertebrates	3) echinoderms	4) insects			
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119.	. Which of these animals has slimy scales on their body?				
	1) reptiles	2) bird	3) fish	4) pangolin	
120.	Hypostomatous (stor	nate on the lower surface)) plants are usually:		
	1) aquatic plants	2) semiaquatic plants	3) non-aquatic plants	4) none of these	
121.	What is the latitudnal	extent of mainland India	?		
	1) 8° 4 28" to 37° 65	3" North	2) 29° 2' 25"		
	3) 07°, 03' to 37° 7°2	8" North	4) 080 4' 28 to 370 3	3' 28" North	
122.	Where is the Indira P	Point located at?			
	1) 08° 45" North latin	tude	2) 06° 45" North latit	ude	
	3) 07 45" North latit	tude	4) 08" 50"		
123.	What is the longitudn	al extent of India?			
	1) 29° 14' 17"	2) 29° 17' 14"	3) 17º 17' 29"	4) 14 [°] 17' 29"	
124.	Where is the prime m	neridian of India lacated?			
	1) 82° 25'	2) 82° 35'	3) 82° 30'	4) 83° 30'	
125.	When was the "Quit	India Movement" resoluti	on sanctioned?		
	1) 14 July 1942	2) 14 July 1922	3) 14 July 1920	4) 12 March 1930	
126.	What is the name of	the southern most tip of I	ndian territory?		
	1) Kanniyakumary	2) Madurai	3) Indira Point	3) Chennai	
127.	Where does the Indus	s river originate?			
	1) Zaskar Range	2) The karakoram	3) Mansarovar	4) Subansiri	
128.	How many percent of	f the people of Rajasthan	live in Desert?		
	1) 22%	2) 38%	3) 43 %	4) 64%	
129.	Which project is buil	t on the Sutlej river?			
	1) Bhakra-Nangal	2) Hirakund	3) Jayakwadi	4) Damodar Valley	
130.	What type of soil is for	ound in Bangar region?			
	1) New alluvial		2) older alluvial		
	3) consisting chemic	ial	4) consisting boulders	s and gravels	
131.	Who was the Viceroy	at the time of Quit India	Movement?		
	1) Lord Irwin	2) Lord Mountbatten	3) Lord Wavell	4) Lord Linlithgow	
132.	The country that shar	es longest border with Ind	lia is–		
	1) China	2) Bangladesh	3) Nepal	4) Pakistan	
133.	"Deshbandhu" is the	title of–			
	1) B. R. Ambedkar	2) C. R. Das	3) B. C. Pal	4) Rabindranath Tagore	
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134.	34. The first woman to conquer Mount Everest twice is-				
	1) Surja Lata Devi	2) Jyoti Randhawa	3) Santosh Yadav	4) Suma Shirur	
135.	Which Indian hockey	y player has a road named	l after him in Germany '	?	
	1) Dhyan Chand	2) Zafar Iqbal	3) Roop Singh	4) Dhanraj Pillai	
136.	Who described the C	Government of India Act,	1935 as a new charter of	of bondage?	
	1) B. R. Ambedkar	2) Mahatma Gandhi	3) Rajendra Prasad	4) Pt. Jawaharlal Nehru	
137.	Kaziranga National I	Park is situated in–			
	1) Odisha	2) Gujarat	3) Rajasthan	4) Assam	
138.	Which City is the ve	nue of the 2018 women's	world Boxing champic	onships.	
	1) New Delhi	2) Pune	3) Shimla	4) Patna	
139.	In which year the Az	ad Hind Government was	formed by Netaji Subha	as Chandra Bose.	
	1) 1943	2) 1942	3) 1940	4) 1941	
140.	Which one of these b	books was written by V.S.	Khandekar?		
	1) Yayati	2) Mrutunjay	3) Shriman Yogi	4) Panipat	
141.	Literacy rate is heigh	er in Brazil than			
	1) India	2) America	3) England	4) Germany	
142.	The life expectency of	of India's is			
	1) Increasing	2) Decreasing	3) Developing	4) All above	
143.	Who was the preside	ent of America during firs	t world war?		
	1) woodrow wilson		2) Franklin Roose	velt	
1 1 1	3) George Washingto	on (Dellees eres)	4) John kenedy		
144.	1) Austria	2) Hungary	ander the empire of	1) Turkov	
145	1) Ausula Mustafa Kamal Dash	2) Hungary	5) Germany	4) Turkey	
145.	1) Germany	2) Turkey	3) Japan	4) Hungary	
146	When and where way	s the first Olympic games	sheld?	+) Hungary	
110.	1) 1995. Athens	2) 1896 Athena's	3) London 2000	4) Rome 1920	
147.	Where is wankhede	Stadium located?	-,	,	
	1) Chennai	2) Pune	3) Nagpur	4) Mumbai	
148.	Where did Christoph	er Columbus landed?			
	1) Asia	2) Africa	3) England	4) West Indies	
149.	Who was the leader	of Germany from 1933 t	o 1945?		
	1) Adolf Hitler		2) Martin Luther k	ing Jr.	
	3) Alexander the Gre	eat	4) Karl Marx.		
150.	How many permanent	nt members are there in t	the security council.		
	1) Three	2) Five	3) Four	4) Six	
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